



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/085,682	02/26/2002	David L. Blankenbeckler	M-12013 US	1491

7590 08/06/2003

Tom Chen
SKJERVEN MORRILL MacPHERSON LLP
Suite 700
25 Metro Drive
san Jose, CA 95110-1349

EXAMINER

PSITOS, ARISTOTELIS M

ART UNIT	PAPER NUMBER
----------	--------------

2653

DATE MAILED: 08/06/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/085,682

Applicant(s)

BLANKENBECKLER ET AL.

Examiner

Aristotelis M Psitos

Art Unit

2653

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 February 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Specification

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary.

Art Unit: 2653

Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 1,16, 23, 2,3,5,6,9,12,14,15, 17-22,24-30 are rejected under 35 U.S.C. 103(a) as obvious over either Moribe et al or Takemura et al each further considered with Halter et al.

Both Moribe et al and Takemura et al disclose optical records having disc shaped substrates, wherein both servo information and recording areas are provided in "land" areas. See the abstract, Figure 22b and the accompanying description in Moribe et al; ^{in Takemura et al} see the abstract, fig. 2 and the associated description thereof – also col 5 lines 35 plus. Although the servo tracks can be interpreted as the first portion, and that track id information is recorded therein, these documents use the term pit(s). Nevertheless, "bumps" is considered merely an alternative phrase for describing such. Alternatively, if applicants' can convince the examiner that such is not the case, then the examiner would further rely upon Halter et al for teaching "bumps" in this environment. The recording material is at least over the land areas, and is as depicted in figure 1b of Moribe et al over the entire disc substrate.

It would have been obvious to modify the base system of either Moribe et al or Takemura et al with the above "bumps" since either pits or bumps are equivalent structure/phrase for describing such structure(s).

The recording material in either of the base references is phase changing, and inherently the data densities in the servo and writable areas are different. The examiner considers that the recording material is deposited on the substrate.

With respect to claim 2, since the track id information is of a smaller data nature, smaller amount of information, than that able to be recording in the writable area, the limitation of claim 2 is met.

The limitation of claims 3 and 17 are considered present when the servo is in the groove area, and the land is in the land area.

Alternatively, with respect to claim 5, Takemura et al also provides for the recording of id information and the writable data in the same plane, second principal surface.

Art Unit: 2653

The limitation of claim 6 is inherently present.

With respect to claim 9, it is noted that this is written as a desired function – “is read” and hence no further positive limitation of the parent claim is presented. Nevertheless, in both of the base references, data is read from the lands, and prerecorded information is read from the “bumps” in the above combination of references.

With respect to the limitations of claim 12, because the Nakamura et al document discloses various thickness for the overall disc record, the specific limitation is considered merely an optimization of such, and hence obvious over the combination of references.

With respect to claims 14 and 15, these limitations are considered inherently present.

With respect to claim 18, the examiner interprets the pre-recorded data as the “mastered information”.

The limitations of claim 19-22 and 24-29 are considered inherently present, i.e., crystalline, amorphous states, changing phases as well as the thickness variation.

With respect to claim 30, note the laser wavelength disclosed in Takemura et al for instance.

7. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over the art as applied to claim 1 above, and further in view of Muller and Nakashima.

The data densities described in this claim are well known for discs in this environment. Muller at col. 3 lines 50-68 and Nagashima at col. 1 lines 30-54.

It would have been obvious to modify the base system of the references relied upon as stated above with the particular recording densities, motivation is to permit the formed disc to be compatible with standard record data densities in this environment and hence increase the marketability of such.

8. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over the art as applied to claim 1 above, and further in view of either Pan et al.

The particular material recited in claim 7 is known as taught by Pan et al.

Selection of materials used in this environment for the phase changing recording layer is considered merely a selection of alternative equivalents known in this environment, and selection between such is considered obvious for such reason(s) as availability, reliability, cost, etc.

Art Unit: 2653

9. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over the art as applied to claim 1 above, and further in view of themselves, or the acknowledged prior art with respect to such phraseology.

As far as the examiner can ascertain, the phrase "first-surface disc" is met either by applicants' own definition of such discs being well known, and or the references. In Halter et al, since servo information is in the first surface, such is present. In Moribe et al, again pre-recorded information, servo data meets the above definition as does Takemura et al.

10. Claims 10 & 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over the art as applied to claim 1 above, and further in view of Igarashi

The limitations with respect to the size of the disc is considered obvious in view of Igarashi which discloses discs less than 80 mm as standard. Selection of appropriate sized disc is merely an optimization of size and obvious to one of ordinary skill in the art.

11. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over the art as applied to claim 1 above, and further in view of Nakamura et al.

In interpreting the above claims, the examiner concluded that the recording material is deposited over the entire record substrate accordingly, as needed. Alternatively, Nakamura et al teaches the ability of placing a laminated recording material over the entire disc substrate.

It would have been obvious to modify the base system of the art above/combination of references, with the additional teaching of placing the recording material over the entire record medium, such being routine practice in this environment.

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Spruit et al, see figures 15-17 with respect to servo tracks, land areas etc. Feyrer et al – depict "bumps". Chung at col. 11 lines 33 plus with respect to various recording abilities including "bubble formation". WO 00/79526 – rom and ram disc structure.

Art Unit: 2653

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aristotelis M Psitos whose telephone number is (703) 308-1598. The examiner can normally be reached on M-Thursday 8 - 4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William R. Korzuch can be reached on (703) 305-6137. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9314 for regular communications and (703) 872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.

Aristotelis M Psitos
Primary Examiner
Art Unit 2653

A handwritten signature in black ink, appearing to be 'AMP', with a long, sweeping underline that extends downwards and to the left.

AMP
August 4, 2003